

NUTRITIONAL ASSESSMENT OF THE WEST BANK AND GAZA STRIP

KEY FINDINGS

2003



OBJECTIVES

- Determine the prevalence of acute and chronic malnutrition in the Palestinian population of preschool aged children one year after intensive food aid;
- Identify sub-populations of preschool aged children that may be vulnerable to acute and chronic malnutrition;
- Measure the quality of food consumption for preschool aged children in terms of macro and micronutrients with a comparison of similar 2002 data;
- Quantify critical food security indicators and the extent to which they affect food consumption;
- Measure the current level of food assistance and the degree to which that assistance is targeted appropriately; and
- Analyze links between nutrition and quantified food security indicators.

METHODS

- Two stage design using sampling frame of the Palestinian Central Bureau of Statistics (first stage: random sampling of urban, non-urban, and camp sampling units; second stage: households within the sampling units)
- Stratified and weighted by population: West Bank (WB) and Gaza Strip (GS)
- Urban, non-urban, and camp;
- 2486 households queried for food security indicators; within these households, 3089 children ages 6-59 months (WB, 1767; GS, 1322) were measured for weight, height, and age; 2027 of the youngest children ages 13-19 months in each of the households measured for 24 hour food recall by the primary caregiver

RESULTS

A. Anthropometry

- Prevalence of Global Acute Malnutrition (GAM)¹: 3.4% (WB, 3.1%; GS, 3.9%); these short-term indicators are an improvement from 2002 (WB, 4.3%; GS, 13.3%)
- Prevalence of Global Chronic Malnutrition (GCM)²: 10.7% (WB, 9.2%; GS, 12.7%)
- The prevalence of GAM is at an acceptable level in August 2003 in both the West Bank and Gaza Strip; however, the districts of Bethlehem, Qalqilya, Deir al Balah, and Khan Younis had the highest prevalence (between 5-8%);
- Compared with data from the previous year, the prevalence of GCM has improved in the Gaza Strip (from 17.5% to 12.7%) but trended upward in the West Bank (from 7.9% to 9.2%), a difference not statistically significant;
- Children registered as refugees were statistically more likely to be *chronically* malnourished (12.4% versus 9.4% and worse in GS refugee children compared to WB refugee children, 13.2% versus 10.6%); refugee children showed trends in being more likely to be *acutely* malnourished, however, this was not statistically significant;

Focus on Refugees:

- Refugee children were less likely to be acutely malnourished in 2003 (3.9%) compared to 2002 (9.6%)
- Refugee children showed an improvement in GCM—from a prevalence of 15.1% in 2002 to 12.4% in 2003

- Children in the age group 6-23 months were statistically more likely to have GAM than those 24-59 months of age; and
- Male children had a trend towards GAM and GCM compared to female children, although this was not statistically significant.

B. Macro and Micronutrient Consumption

Between 2002 and 2003, intake of the following nutrients *decreased* by:

- Energy—8.3% for 1-3 year olds, 13.2% for 4-5 year olds;
- Protein—10.8% for 1-3 year olds, 16.7% for 4-5 year olds;
- Vitamin A—23.6% for 1-3 year olds, 19.9% for 4-5 year olds;
- Vitamin E—10.5% for 1-3 year olds, 23.0% for 4-5 year olds;
- Folate—11.3% for 1-3 year olds, 18.9% for 4-5 year olds;
- Iron—0.0% for 1-3 year olds, 15.0% for 4-5 year olds; and
- Zinc—11.6% for 1-3 year olds, 18.4% for 4-5 year olds.

Declines in daily macro and micronutrient intake were generally worse in the Gaza Strip. The percentages of preschool age children deficient (based on Recommended Dietary Allowances) in selected macro and micronutrients are as follows:

- Of daily energy/calorie intake: 55.5% of 1-3 year olds and 85.8% of 4-5 year olds (WB) and 61.7% of 1-3 year olds and 92.5% of 4-5 year olds (GS) are deficient;
- Of daily Vitamin A intake: 64.1% of 1-3 year olds and 75.1% of 4-5 year olds (WB) and 79.5% of 1-3 year olds and 88.1% of 4-5 year olds (GS) are deficient;
- Of daily Vitamin E intake: 50.7% of 1-3 year olds and 51.3% of 4-5 year olds (WB) and 41.5% of 1-3 year olds and 49.3% of 4-5 year olds (GS) are deficient;

¹ Acute malnutrition or wasting is defined as inadequate nutrition in the short-term, indicated by the ratio of a child's weight to his or her height/length.

² Chronic malnutrition or stunting is defined as an indicator of past growth failure, implying longer-term under nutrition. This may lead to serious irreversible growth and developmental delays

- Of daily folate intake: 56.6% of 1-3 year olds and 76.3% of 4-5 year olds (WB) and 53.9% of 1-3 year olds and 77.6% of 4-5 year olds (GS) are deficient;
- Of daily iron intake: 81.3% of 1-3 year olds and 84.4% of 4-5 year olds (WB) and 88.7% of 1-3 year olds and 87.3% of 4-5 year olds (GS) are deficient;
- Of daily zinc intake: 95.0% of 1-3 year olds and 95.2% of 4-5 year olds (WB) and 94.4% of 1-3 year olds and 93.3% of 4-5 year olds (GS) are deficient;
- Of daily protein intake: 4.5% of 1-3 year olds and 12.7% of 4-5 year olds (WB) and 8.0% of 1-3 year olds and 18.7% of 4-5 year olds (GS) are deficient.

C. Food Security

Employment was treated as a variable affecting food security:

- 45.1% of GS households are under or unemployed (total working hours less than 20 hours per week or no members employed) compared to 34.0% of WB families; acutely and chronically malnourished children are more likely to come from households with a poor level of employment than those with part-time or full employment (GAM of 4.1% versus 2.3%; GCM of 18.3 versus 12.1%).
- The amount of monthly Palestinian household income decreased 53.9% in the six months prior to the survey, an indication that food insecurity will likely increase with further deterioration in the Palestinian economy.

Palestinian households altered their behaviors and exhibited coping strategies in order to have economic access to food. ***In order to buy food*** over the past six months:

- 57.2% decreased their Eid holiday giving;
- 62.5% (WB 63.6%; GS 60.7%) did not pay or paid less on their utility bills;
- 57.9% (WB 58.7%, GS 56.6%) did not buy or bought less clothes for their children;
- 33.0% paid less or did not pay rent; and
- 26.9% (WB 29.8%, GS 20.3%) forsook buying medications for household members with chronic diseases; and
- 27.0% sold non-productive assets.

Palestinian households utilized a number of ***coping strategies*** in order to access food. Households were deemed food insecure if these strategies were performed one or more times per week. The most commonly used at least one or more times per week included:

- Purchasing food on credit: WB, 20.4%; GS, 50.5%;
- Decreasing household consumption of food: WB, 20.0%; GS, 32.5%;
- Relying on less preferred and less expensive food items (e.g. frozen instead of fresh and usually of less nutritional value): WB, 15.1%; GS, 41.0%;
- Reducing the number of household meals eaten in a day: WB, 7.6%, GS, 11.9%.
- GS households rely on coping strategies more than WB households;
- Households coping by decreasing the amount of household food once a week had a greater likelihood of having children with GCM.

Of all Palestinian households, 46.8% —32.2% in the West Bank and 71.8% in the Gaza Strip—consistently rely on food assistance. ***One-third of the entire Palestinian population relies on food assistance*** for at least one fourth of its food budget.

- Households with employment of less than 20 hours per week and currently without food assistance: WB, 52.8%; GS, 26.6%;
- Households with decreased food consumption one or more times per week and currently without food assistance: WB, 69.7%, GS, 19.8%;
- Households purchasing food on credit one or more times per week and currently without food assistance: WB, 67.5%; GS, 23.1%; and
- Eating less preferred/less expensive foods one or more times per week and currently without food assistance: WB, 67.5%; GS, 19.5%.

CONCLUSIONS

- Children ages 6-59 months are less likely to be acutely malnourished in 2003 compared to 2002, particularly in GS:
 - Decreased prevalence GAM
 - GAM prevented in 2003
- Due to increased and sustained food assistance, food attention:
 - Improved GCM prevalence in GS
 - Greater improvement in GCM prevalence among refugee than non-refugee children
 - Trend to increasing GCM in WB
- The quality of food intake has further deteriorated among children ages 6-59 months since 2002:
 - Decreased caloric intake of children as they age—an ominous sign of food insecurity
 - 2003 children eating below levels of energy, protein, Vitamins A and E, iron, folate, zinc than 2002
- Coping strategies: Used more frequently in GS than in WB
 - Coping strategies: used more frequently in GS than in WB
 - Decreasing amount of HH food
 - Purchasing on credit
 - Eating less preferred / expensive foods

Additional Conclusions:

- Household food purchasing power is limited, more in GS than in WB; food takes precedence over clothes, medications, gift-giving
- Food assistance needs more focused targeting, particularly in the WB
- A high percentage of the population depends on food aid for their main food source
- The combination of the above factors indicates that current household food security and nutrition remains unstable and could easily deteriorate.